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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/783,601

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William O. Camp JR.

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EXAMINER

HAILEMARIAM, EMMANUEL

ART UNIT

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2629

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/783,601

Applicant(s)

CAMP ET AL.

Examiner

Emmanuel Hailemariam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed on 05/07/2007 have been considered but are ineffective to overcome the King et al, Comerford and Griffin references. (See the rejection above).

With respect to applicant argument, which states, "a thumb-operable...using the thumb" On the other hand, Canova discloses the functionality of the handheld computer to be one hand free (par. 29), especially for disabled personal. Also, Canova discloses the input device (119) is easily accessible by the user's thumb (par. 38). Besides, due to its compact size, the handheld computer's input device is toggled using the thumb finger.

With respect to applicant argument, which states, "nothing in Brosnan discusses ... thumb operable". But, Brosnan discloses a highlight bar (16, fig. 1A) where selected of menu is displayed (col. 4 line 34-44). The combined modified invention of Canova and Brosnan discloses a thumb-operable input device (119) and a highlight bar (16). The applicant argument is moot. The applicant did not claim as to the highlight bar being positioned on the side of the housing of the portable device. Applicant cites in claim 1 "the indicator being positioned on the display to highlight and/or select menu items on the display responsive to input received at the thumb-operable input device" Thus, applicant argument is moot.

With respect to applicant argument, as for the motivation argument, Cornova discloses a portable electronic device having a thumb-operable input device,

but doesn't expressly teach the indicator that highlights menu items. In order to fully disclose the claimed invention, on other hand, Brosnnan references is found to be relevant to this teaching; Brosnnan discloses a highlights bar (16), where a user highlights a particular one of the menu items (col.3 lines 9-15 col.4 lines 34,col. 4 lines 44-45, fig 1A (16)). In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Brosnnan reference will provide a user with a visual indicator to easily see information.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 6-13, 25, 26 and 29 - 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canova (US 2003,1037495 A1) in view of Brosnan (6977645 B2).

As to claims 1 & 13 Canova discloses a portable electronic device, comprising: (Fig. 9 a hand held computer 100, [0042]) a housing (fig. 3-9 (100); a display integrated with the housing (Fig. 3- 9 (114), [0019]); a thumb-operable input device positioned on a side of the housing; (Fig.9 -6 (111,119) [0019], [0027]) an indicator on the display operatively associated with the thumb-operable input device (116) (Fig.9 [0024], [0038]).

Canova doesn't teach the indicator that highlights menu items.

On other hand, Brosnan teach a highlights bar (16), where a user highlights a particular one of the menu items (col.3 lines 9-15 col.4 lines 34,col. 4 lines 44-45, fig 1A (16)).

Therefore, It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Canova's handheld computer with Brosnan's a

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bar which highlight menu, because this will provide a user with a visual indicator to easily see information.

As to claim 6, Canova as modified by Brosnan teaches wherein the thumb-operable input device comprises: a slot (Fig. 4 (119)); and a bar (Fig.9 (119)) configured to slide in the slot to position the indicator on the display to highlight and/or select one of a plurality of menu items (Fig. 9 (119) [00 27]).

AS to claims 7, Canova teaches wherein the thumb-operable input device further comprises: [0039] a plurality of notches in the slot, each of the plurality of notches being associated with one of the plurality of menu items, wherein the bar is further configured to move in the slot between the notches to position the indicator on the display to highlight and/or select the associated menu item [0024], [0042]. It would be obvious switches (notches of (110)) are associated with the menu (116) because in order to select the menu one have to use the thumb wheel (119).

As to claim 8, Canova teaches sensor operatively associated with the bar and configured to detect movement of the bar in the slot; and a processor operatively associated with the sensor, the processor being [0027] configured to process the detected movement of the bar and move the indicator on the [0034] display between the menu items responsive to the processed movement.

As to claim 9 Canova teaches wherein the thumb-operable input device further comprises a spring mechanism, the spring mechanism being configured to reposition the bar at an end of the slot between selections of menu items [0027].

As to claim 10, Canova teaches wherein the thumb-operable input device comprises at least one of a fingerprint sensor, touchpad or hinged bar, wherein the indicator is configured to move between menu items responsive to upward and/or downward movement on the fingerprint sensor, the touchpad or the hinged bar ([0022], [0031]).

As to claim 11, Canova teaches wherein the thumb-operable input device comprises a touchpad positioned on a side of the housing [0030], [0020].

As to claims 12, Canova teaches further comprising: a sensor operatively associated with the touchpad and configured to detect movement on the touchpad; and [0022] a processor operatively associated with the sensor, the processor being configured to process the detected movement on the touchpad and move the indicator on the display between the menu items responsive to the processed movement. [003] .

As to claims 25, 26, 29, 30, 31 and 32, give the electronic device Canova's modified by Brosnan as discussed above in claims 1, 2, 6, 7, 9 and 10, the method of operating a portable electronic device as claimed in claims 25, 26, 29, 30, 31 and 32 is inevitable.

3. **Claims 2, 14 and 18-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Canova (US 2003/1037495) in view of Brosnan (US 6,977,645) as applied to claim 1 above, and further in view of Frederiksen (US 6,570,596).

As to claims 2 & 14, Canova further teaches the thumb-operable input device comprises at least one thumb position sensor [0027] and wherein the thumb position

sensor is configured to detect a position of a thumb on the thumb-operable input device (Fig. 9 (111,119) [0027], [0028], [0019]).

However, Canova as modified by Brosnan does not teach the thumb-operable input device moving the indicator on the display between the menu items responsive to the position of the thumb on the thumb-operable input device.

Frederiksen teaches thumb-operable input device (i.e., navigation and selection key 10) moving the indicator on a display (3) between the menu items responsive to the position of the thumb on the thumb-operable input device (i.e., navigation and selection key 10) (Col. 2, lines 3-21;see Fig.4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made further modify the thumb-operable input device Canova as modified by Brosnan for moving the indicator on the display between the menu items responsive to the position of the thumb on the thumb-operable input device as taught by Frederiksen for the purpose of providing a user a visual indication of a selected item by the thumb-operable input device.

4. As to claim 18, the same rejection as claim 6 above.
5. As to claim 19,the same rejection as claim 7 above.
6. As to claim 20,the same rejection as claim 8 above.
7. As to claim 21,the same rejection as claim 9 above.
8. As to claim 22,the same rejection as claim 10 above.
9. As to claim 23,the same rejection as claim 11 above.
10. As to claim 24,the same rejection as claim 12 above.

11. Claims 3, 4, 5, 15, 16, 17, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canova (US 2003/1037495) in view of Brosnan (US 6,977,645) as applied to claim 1 above, and further in view of Poloniemi et al. (EP 1113385 A2, submitted by applicant).

As to claims 3, 4, 15 and 16, Canova as modified by Brosnan does not teach a thumb movement sensor.

However, Poloniemi further teaches detecting movement via fingerprint analysis for the purpose of making operation of the electronic equipment's user interface more intuitive (Figs. 1-5; Col. 1, lines 1-8; Col. 5, line 20-Col. 7, line 29).

It would have been obvious to one having ordinary skill in the art at the time the invention was made further configure the thumb movement sensor of Canova's modified by Brosnan for detecting movement via fingerprint analysis as taught by Poloniemi for the purpose of making operation of the electronic equipment's user interface more intuitive as taught by Poloniemi.

As to claims 5 and 17, Poloniemi, the thumb movement sensor being further configured to detect distortion of a fingerprint on the thumb-operable input device and wherein the processor (col.6 lines 5-15) being further configured to process the detected distortion of the fingerprint and highlight and/or select menu items on the display responsive to the detected distortion would have been obvious since Poloniemi teaches these features (Figs. 1-5; Col. 1, lines 1-8; Col. 5, line 20-Col. 7, line 29).

As to claims 27 and 28, The same rejection applies as to claims 4 and 5 above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Hailemariam whose telephone number is 571-270-1545. The examiner can normally be reached on M-F 8:00am - 5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-270-1550. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

E.H

07/15/07



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SUPERVISORY PATENT EXAMINER